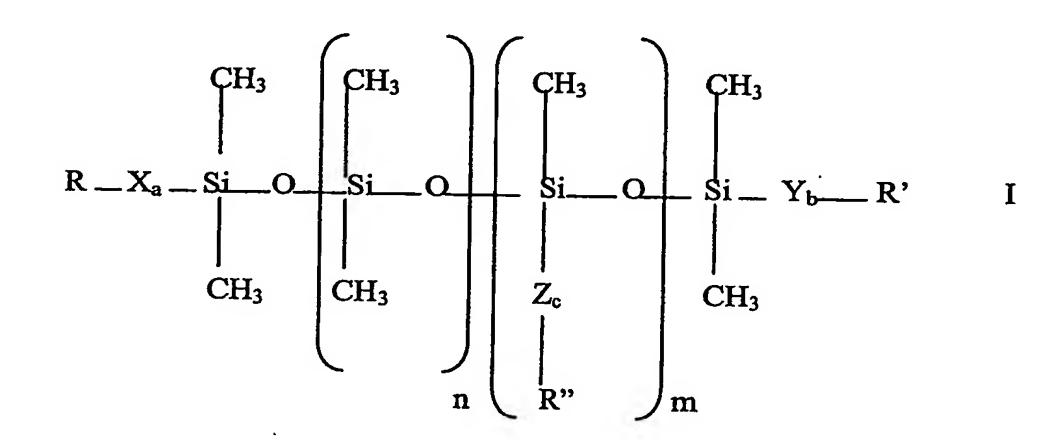
Claims:

- 1. A method of reducing the drying shrinkage of a cementitious composition to which water has been added and the composition placed, comprising adding to the composition prior to placement at least one siloxane compound that is at least one of liquid and soluble in at least one of water and aqueous alkali.
- 2. A method according to claim 1, in which the siloxane compound selected from those that correspond to the general formula I:

10

15

5



where m and n are independently from 1-2000, preferably from 1-500 and more preferably from 1-200, a, b, and c are independently either 0 or 1 and X, Y and Z are selected from

-O-;

- -O-(CH₂)₁₋₃₀-, this moiety being at least one of linear, branched and containing at least one ring;
 - -(CH₂)₁₋₃₀-, this moiety being at least one of linear, branched and containing at least one ring;
 - -CH₂-CH₂-CH₂-O-;
- -CH₂-CH₂-CH₂-CHOH-CH₂-;
 - -CH₂-CH₂-CH₂-CHOH-CH₂-O-;
 - -CH₂-CH₂-CH₂-CHOH-CH₂-N-;

5

10

15

20

and R, R' and R'' are independently selected from at least one of hydrogen, C₁₋₁₀₀ alkyl, C₆₋₃₀ aryl, C₇₋₃₀ aralkyl; C₇₋₃₀ alkaryl; C₁₋₃₀ hydroxyalkyl; C₃₋₂₀₀ polyhydroxyalkyl; polyether consisting of from 2-200 identical or different C₁₋₁₅ oxyalkylene units, with the proviso that, if there is present more than one type of oxyalkylene unit, there shall be present at least two of each unit; C₁₋₃₀ aminoalkyl; polyiminopolyalkylene having from 1-20 identical or different C₂₋₁₅ alkylene units; polyiminopolyoxyalkylene having from 1-20 identical or different C₂₋₁₅ oxyalkylene units; C₃₋₃₀ quaternary ammonium, optionally completely or partially ionised with at least one anion; C₄₋₃₀ betaine; carboxyl, optionally completely or partially ionised with any suitable cation; C₄₋₃₀ polycarboxyalkyl, optionally completely or partially ionised with at least one cation; sulpho group, optionally completely or partially ionised with at least one cation; thiosulpho group, optionally completely or partially ionised with at least one cation; epoxide group; glycidyl; acrylate; C₁₋₃₀ ester; polyester consisting of from 2-200 C₂₋₁₅ diacid and diester monomer units; and esters of inorganic acids, all alkyl chains being at least one of linear, branched and comprising at least one ring.

3. A method according to claim 2, in which the siloxane compound of formula I is such that a, b, and c are all 1 and X, Y and Z are selected from

-O-(CH₂)₁₋₃₀-, this moiety being linear or branched;

-(CH₂)₁₋₃₀-, this moiety being linear or branched;

-CH₂-CH₂-CH₂-CHOH-CH₂-;

and R, R' and R" are independently selected from at least one of hydrogen; hydroxy; polyether consisting of from 2-200 identical or different C₂₋₆ oxyalkylene units, with the proviso that, if there is present more than one type of oxyalkylene unit, there shall be present at least two of each unit; C₃₋₃₀ quaternary ammonium, optionally completely or partially ionised with at least one anion; C₄₋₃₀ betaine; carboxyl, optionally completely or partially ionised with at least one cation; sulpho group, optionally completely or partially ionised with at least one cation; thiosulpho group, optionally completely or partially

9

ionised with at least one cation; glycidyl; and acrylate; all alkyl chains being at least one of linear, branched and comprising at least one ring.

4. A method according to claim 2, in which the siloxane compound of Formula I is such that m and n are independently selected from 1-200, a, b, and c are all 1 and X, Y and Z are selected from

```
-O-(CH<sub>2</sub>)<sub>1-12</sub>-;

10 -(CH<sub>2</sub>)<sub>1-12</sub>-;

-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-O-CH<sub>2</sub>-CHOH-CH<sub>2</sub>-;
```

and R, R' and R" are independently selected from at least one of hydrogen; hydroxy; polyether consisting of from 2-200 identical or different C₂₋₆ oxyalkylene units, with the proviso that, if there is present more than one type of oxyalkylene unit, there shall be present at least two of each unit; C₃₋₃₀ quaternary ammonium, optionally completely or partially ionised with at least one anion; C₄₋₃₀ betaine; carboxyl, optionally completely or partially ionised with at least one cation; glycidyl; and acrylate; all alkyl chains being capable of being linear or branched.

20

15

5. A method according to claim 2, in which the siloxane compound of Formula I is such that m is from 1-30 and n is from 1-100, a, b, and c are all 1 and X, Y and Z are selected from

```
-O-(CH<sub>2</sub>)<sub>1-6</sub>-;
-(CH<sub>2</sub>)<sub>1-6</sub>-;
-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-O-CH<sub>2</sub>-CHOH-CH<sub>2</sub>-;
```

and R, R' and R'' are independently selected from at least one of hydrogen; hydroxy; polyether consisting of from 2-200 identical or different C₂₋₆ oxyalkylene units, with the proviso that, if there is present more than one type of oxyalkylene unit, there shall be present at least two of each unit; C₃₋₂₀ quaternary ammonium, optionally completely

or partially ionised with at least one anion; C₄₋₁₀ betaine and carboxyl, optionally completely or partially ionised with at least one cation; all alkyl chains being capable of being linear or branched.

- 5 6. A method according to any one of claims 1-5, in which finely-divided silica is added to the cementitious composition.
 - 7. A cementitious composition with reduced drying shrinkage, prepared by a method according to any one of claims 1-6.

8. A cementitious composition according to claim 7, in which the composition additionally contains finely-divided silica.

10